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16. A method of determining blood pressure, for use with an apparatus that includes: (i) a limb orientation sensing unit, (ii) a blood pressure measurement mechanism, and (iii) a timing mechanism, wherein the timing mechanism is coupled to the blood pressure measurement mechanism and the limb orientation sensing unit; the method comprising the steps of:

- (a) applying the blood pressure measurement mechanism and the limb orientation sensing unit to an individual's limb to detect an orientation of the limb ;
- (b) the limb orientation sensing unit configured to sense a correct orientation and, in response thereto, delivering an electrical signal to the blood pressure measurement mechanism;
- (c) the blood pressure measurement mechanism automatically measuring blood pressure in response to the electrical signal; and,
- (d) said orientation sensing unit adopted to provide information to assist in reaching said correct orientation.

17. The method of claim 16 wherein the apparatus includes a display mechanism coupled to the limb orientation sensing unit, the method further comprising the step of displaying a graphical indication that guides the limb to said correct orientation.

18. The method of claim 17 wherein the display mechanism is also coupled to the blood pressure measurement mechanism, the method further comprising the step of displaying blood pressure and pulse.

19. The method of claim 17 further including the steps of:

the limb orientation sensing unit monitoring displacement of the limb during the

step of blood pressure measurement, and

displaying an error message if the limb is displaced during the step of measuring blood pressure.

20. The method of claim 17, further comprising the step of correcting the measured blood pressure in response to at least one of an actual orientation and an actual position of the individual's limb, wherein, respectively, the actual orientation is not the correct orientation and/or the actual position is not the correct position.

21. The method of claim 16, further comprising the steps of a sensing motion of the individual's limb while the blood pressure is being measured, and correcting the measured blood pressure in response to the sensed motion.

22. The method of claim 17, wherein the visual indication is indicative of whether at least one of the sensed limb orientation and the sensed limb position is in a correct angular range of the limb from which a blood pressure measurement is taken, such that the graphical indication interactively directs a user to an orientation having a correct inclination of wrist for measurement of blood pressure.

23. An apparatus including:

- (a) a limb orientation sensing unit;
- (b) a blood pressure measurement mechanism; and
- (c) a time measurement mechanism;

wherein the time measurement mechanism is coupled to the blood pressure measurement mechanism and the limb orientation sensing unit;

wherein, upon the apparatus being applied to an individual's limb and initiation of the measure sequence, the limb orientation sensing unit senses an orientation of the limb, the

timing mechanism is automatically triggered and the blood pressure measurement mechanism detects blood pressure prevailing in the limb;

wherein the limb orientation sensing unit is configured to, upon sensing a correct orientation of the limb, deliver an electrical signal to the blood pressure measurement mechanism; and

wherein the blood pressure measurement mechanism automatically measures blood pressure in response to the electrical signal.

24. The apparatus of claim 23 further comprising a display mechanism, coupled to the limb orientation sensing unit, for displaying a graphical indication that guides the individual to place the limb in the correct orientation.

25. The apparatus of claim 24 wherein the display mechanism is also coupled to the blood pressure measurement mechanism, and wherein the display mechanism displays at least one of blood pressure and pulse.

26. The apparatus of claim 24 wherein the limb orientation sensing unit monitors displacement of the limb during the step of blood pressure measurement, and the display mechanism displays an error message if the limb is subject to error-producing displacement during a blood pressure measurement.

27. The apparatus of claim 24, wherein the blood pressure measurement mechanism corrects measured blood pressure in response to an actual orientation of the individual's limb as measured by the limb orientation sensing unit, wherein the actual orientation is not the correct orientation.

28. The apparatus of claim 23, further including a motion sensor for detecting motion of the individual's limb while blood pressure is being measured by the blood pressure

measurement mechanism, and for correcting the measured blood pressure in response to the sensed motion.

29. The apparatus of claim 24, wherein the graphical indication is indicative of whether the sensed limb orientation is in a correct angular range of the limb from which a blood pressure measurement is taken, such that the graphical indication causes the user, by interaction, to adopt an orientation within the correct angular range.

30. The apparatus of claim 24, further comprising a data storage device for storing correct orientation data.

31. The apparatus of claim 24, wherein the blood pressure measurement mechanism is positioned within a unit constructed to fit an individual's wrist.

32. The apparatus of claim 24, wherein the display mechanism provides an indication in the form of two arrows pointing in opposite directions, and one of the arrows indicates a direction by which a limb orientation correction may be performed if the limb is not in the correct orientation.

33. The apparatus of claim 32, further comprising a measurement value storage device for determining validity of a blood pressure measurement taken by the blood pressure measurement mechanism, wherein the display mechanism is further equipped with an error readout display for indicating improper blood pressure measurement.

34. The apparatus of claim 33 wherein the error readout of the display mechanism is activated during the blood pressure measurement.

35. The apparatus of claim 33 wherein the error readout of the display is activated after the blood pressure measurement.

36. The apparatus of claim 23 further comprising an error flag mechanism, wherein

the display of the measured position is not continuously activated for display of orientation;
wherein the limb orientation sensing unit is continuously activated during blood pressure measurement; and

wherein the limb orientation sensing unit is used to activate the error flag mechanism if the limb orientation sensing unit detects that the limb is not in the correct orientation at any time during blood pressure measurement.

37. The apparatus of claim 23 wherein the display mechanism is also adapted to display at least one of blood pressure measurement values and a pulse rate.

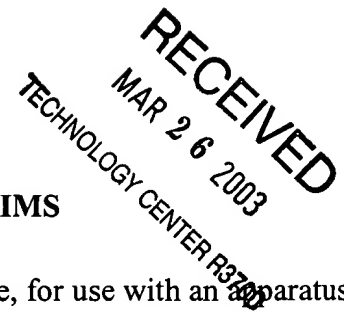
38. The apparatus of claim 24 wherein the limb orientation sensing unit senses inclination of a user's wrist.

39. The apparatus of claim 38 wherein the limb is an arm, and the correct orientation is such that the arm is substantially adjacent and proximate to the chest/upper portion of the body 25.

40. The apparatus of claim 39 wherein the display mechanism is arranged such that a blood pressure measurement value and/or a pulse is substantially readable only if the arm is in the correct orientation.

41. The method of claim 16 wherein the orientation sensing unit measures inclination of a user wrist.

42. The method of claim 17 wherein the graphical indication is by directional arrow.



MARKED UP VERSION OF CLAIMS

16. (Amended) A method of determining blood pressure, for use with an apparatus that includes: (i) a limb orientation sensing unit, (ii) a blood pressure measurement mechanism, and (iii) a timing mechanism, wherein the timing mechanism is coupled to the blood pressure measurement mechanism and the limb orientation sensing unit; the method comprising the steps of:

(a) applying the blood pressure measurement mechanism and the limb orientation sensing unit to an individual's limb to detect ~~a presence of blood pressure in the limb, to detect at least one of an actual orientation and an actual position of the limb, and to automatically trigger the timing mechanism; and;~~

(b) the limb orientation sensing unit configured to sense ~~at least one of a correct orientation and a correct position of the limb,~~ and, in response thereto, delivering an electrical signal to the blood pressure measurement mechanism; ~~and~~

(c) the blood pressure measurement mechanism automatically measuring blood pressure in response to the electrical signal; ~~or and,~~

(d) ~~upon the timing mechanism measuring a passage of a predetermined amount of time, the timing mechanism automatically causing the blood pressure measurement mechanism to measure blood pressure.~~ said orientation sensing unit adopted to provide information to assist in reaching said correct orientation.

17. (Amended) The method of claim 16 wherein the apparatus includes a display mechanism coupled to the limb orientation sensing unit, the method further comprising the step of displaying a visual-graphical indication that guides ~~the individual to place the limb in at least one of the~~ to said correct orientation and the correct position.

18. (Amended) The method of claim 17 wherein the display mechanism is also coupled to the blood pressure measurement mechanism, the method further comprising the step of displaying ~~at least one of~~ blood pressure and pulse.

21. (Amended) The method of claim 16, further comprising the steps of ~~providing a motion sensor,~~ sensing motion of the individual's limb while the blood pressure is being measured, and correcting the measured blood pressure in response to the sensed motion.

22. (Amended) The method of claim 17, wherein the visual indication is indicative of whether at least one of the sensed limb orientation and the sensed limb position is in a correct angular range of the limb from which a blood pressure measurement is taken, such that the ~~visual graphical indication causes the user, by interaction, to adopt an orientation and/or a position within the~~ interactively directs a user to an orientation having a correct angular range inclination of wrist for measurement of blood pressure.

23. (Amended) An apparatus including:

- (a) a limb orientation sensing unit;
- (b) a blood pressure measurement mechanism; and
- (c) a time measurement mechanism;

wherein the time measurement mechanism is coupled to the blood pressure measurement mechanism and the limb orientation sensing unit;

wherein, upon the apparatus being applied to an individual's limb and initiation of the measure sequence, the limb orientation sensing unit senses an orientation of the limb, the timing mechanism is automatically triggered and the blood pressure measurement mechanism detects blood pressure prevailing in the limb; ~~the limb orientation sensing unit senses at least~~

~~one of a position and an orientation of the limb, and the timing mechanism is automatically triggered;~~

wherein the limb orientation sensing unit is configured to, upon sensing a correct orientation of the limb, ~~sense at least one of a correct orientation and a correct position of the limb, and, in response thereto,~~ deliver an electrical signal to the blood pressure measurement mechanism; and

wherein the blood pressure measurement mechanism automatically measures blood pressure in response to the electrical signal; and,

~~wherein, upon the timing mechanism measuring a passage of a predetermined amount of time, automatically causing the blood pressure measurement mechanism to measure blood pressure.~~

24. (Amended) The apparatus of claim 23 further comprising a display mechanism, coupled to the limb orientation sensing unit, for displaying a graphical ~~visual~~ indication that guides the individual to place the limb in ~~at least one of the correct orientation and the correct position.~~

26. (Amended) The apparatus of claim 24 wherein the limb orientation sensing unit monitors displacement of the limb during the step of blood pressure measurement, and the display mechanism displays an error message if the limb ~~is displaced~~ is subject to error-producing displacement during a blood pressure measurement.

27. (Amended) The apparatus of claim 24, wherein the blood pressure measurement mechanism corrects measured blood pressure in response to ~~at least one of an actual orientation and an actual position~~ of the individual's limb as measured by the limb orientation sensing unit,

wherein, ~~respectively,~~ the actual orientation is not the correct orientation, ~~and/or the actual position is not the correct position.~~

29. (Amended) The apparatus of claim 24, wherein the graphical ~~visual~~ indication is indicative of whether ~~at least one of the sensed limb position and the sensed limb orientation~~ is in a correct angular range of the limb from which a blood pressure measurement is taken, such that the graphical ~~visual~~ indication causes the user, by interaction, to adopt ~~at least one of a position and an orientation~~ within the correct angular range.

30. (Amended) The apparatus of claim 24, further comprising a data storage device for storing correct orientation data ~~reference data~~.

32. (Amended) The apparatus of claim 24, wherein the display mechanism provides an indication in the form of two arrows pointing in opposite directions, and one of the arrows is ~~illuminated to indicate~~ indicates a direction by which ~~at least one of a limb position correction may be performed if the limb is not in the correct position, and a limb orientation correction may be performed if the limb is not in the correct orientation~~ orientation.

33. (Amended) The apparatus of claim 32, further comprising a measurement value storage device for determining validity of a blood pressure measurement taken by the blood pressure measurement mechanism, wherein the display mechanism is further equipped with an error readout display for indicating ~~any of a plurality of improper~~ blood pressure measurement ~~conditions, including at least one of an incorrect measurement position, an incorrect measurement orientation, an incorrect measurement inclination angle, and limb movement taking place during the blood pressure measurement.~~

35. (Amended) The apparatus of claim ~~34~~ 33 wherein the error readout of the display is activated after the blood pressure measurement.

36. (Amended) The apparatus of claim 23 further comprising an error flag mechanism, wherein the display ~~mechanism~~ of the measured position is not continuously activated ~~during blood pressure measurement~~ for display of orientation;

wherein the limb orientation sensing unit is continuously activated during blood pressure measurement; and

wherein the limb orientation sensing unit is used to activate the error flag mechanism if the limb orientation sensing unit detects that the limb is not in ~~at least one of the correct position and the correct orientation~~ at any time during blood pressure measurement.

38. (Amended) The apparatus of claim 24 wherein the limb orientation sensing unit senses ~~both limb position and limb orientation~~ inclination of a user's wrist.

39. (Amended) The apparatus of claim 38 wherein the limb is an arm, and the correct orientation is such that the arm is substantially adjacent and proximate to the chest/upper portion of the ~~body~~.25 body 25.

41. (New) The method of claim 16 wherein the orientation sensing unit measures inclination of a user wrist.

42. (New) The method of claim 17 wherein the graphical indication is by directional arrow.